



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,584	03/10/2004	Se-Hwan Son	B-4265DIVofPCT 621722-3	6343
7590 Richard P. Berg c/o LADAS & PARRY Suite 2100 5670 Wilshire Boulevard Los Angeles, CA 90036-5679			EXAMINER YAMNITZKY, MARIE ROSE	
			ART UNIT 1774	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	
3 MONTHS			02/20/2007	
			DELIVERY MODE PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/798,584

Applicant(s)

SON ET AL.

Examiner

Marie R. Yamnitzky

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2006 and 05 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6,7 and 9-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4,6,7,9-13,15 and 18-20 is/are allowed.
- 6) ☒ Claim(s) 17 is/are rejected.
- 7) ☒ Claim(s) 14 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1774

1. This Office action is in response to applicant's amendment received November 20, 2006, which amends claims 1, 6, 7, 10, 12 and 14-19, and cancels claims 5 and 8.

In the amendment, claims 14 and 16 are listed as "Previously Presented", but both contain changes relative to the prior version of the claims. (See the objection to these claims for informalities as set forth later in this action.)

Claims 1-4, 6, 7 and 9-20 are pending.

2. The examiner acknowledges receipt of certified translations of foreign priority applications KR 1999-67746 (12/31/1999) and KR 2000-82085 (12/26/2000).

3. The terminal disclaimer filed on December 05, 2006, disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent No. 6,720,573, has been reviewed and is accepted. The terminal disclaimer has been recorded.

4. The rejection under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, as set forth in the Office action mailed August 17, 2006 is overcome by amendment with respect to the issues raised for claims 15, 18 and 19. The issues raised regarding the scope of "aromatic hydrocarbon" as recited in claims 1, 12 and 17, and the scope of "aromatic group" as recited in claims 6 and 7, are withdrawn in consideration of applicant's arguments.

The rejection under 35 U.S.C. 102(e) based on Ueno et al. (US 6,436,599 B1) is withdrawn in consideration of the certified translation of applicant's foreign priority application KR 1999-67746. The '746 priority application fully supports the rejected claims and was filed prior to the effective U.S. filing date of Ueno's application.

The rejection of claims 5 and 8 under 35 U.S.C. 101 based on US 6,720,573 B2 is rendered moot by claim cancellation.

The obviousness-type double patenting rejection based on US 6,720,573 B2 is overcome by the terminal disclaimer filed December 05, 2006.

The miscellaneous issues noted in the August 17<sup>th</sup> action have been corrected by applicant's amendment.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 17 is rejected under 35 U.S.C. 102(b) as being anticipated by Czarnik et al. (US 4,780,536).

Czarnik et al. disclose compounds represented by Chemical Formula 1 as defined in claim 17. The preamble recitation of "layer" is considered to be met by Czarnik's disclosure of the compounds as being obtained as solids. The preamble recitation of "hole-injecting" indicates

Art Unit: 1774

the intended use of the layer and places no positive limitations on the layer beyond the requirements imposed by the formula. It is reasonable to expect that the compounds disclosed by Czarnik et al. that are within the scope of present Chemical Formula 1, such as the compound of Czarnik's Example 1 and claim 2 (which is the compound of applicant's Chemical Formula 1a), could be used for the same purpose.

7. Applicant's arguments filed November 20, 2006 have been fully considered but they are not persuasive with respect to the patentability of claim 17 over the patent to Czarnik et al.

Applicant argues that Czarnik et al. do not disclose a hole injecting layer comprising a compound represented by Chemical Formula 1. Applicant argues that Czarnik et al. do not disclose a "layer" of the compound.

In describing the synthesis of the compounds, Czarnik et al. describe the product (the compound) in solid form. It is the examiner's position that Czarnik's "solid" product meets the limitations of a "layer".

8. Claims 1-4, 6, 7, 9-13, 15 and 18-20 are allowed.

9. Claims 14 and 16 are objected to because of the following informalities:

In line 2 of claim 14, "capable" should read --capability--.

In line 1 of claim 16, --device-- should be inserted after "light-emitting".

Appropriate correction is required. Claims 14 and 16 will be allowable upon correction of these informalities.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (571) 272-1531. The examiner works a flexible schedule but can generally be reached at this number from 7:00 a.m. to 3:30 p.m. Monday-Friday.

The current fax number for all official faxes is (571) 273-8300. (Unofficial faxes to be sent directly to examiner Yamnitzky can be sent to (571) 273-1531.)

MRY  
February 15, 2007



MARIE YAMNITZKY  
PRIMARY EXAMINER

1774